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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/007,743 | 11/08/2001 | Ki-Won Jeong | 11154-002003 | 3893 |

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EXAMINER

VU, NGOC K

| ART UNIT | PAPER NUMBER |
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2611

DATE MAILED: 07/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/007,743

Applicant(s)

JEONG ET AL.

Examiner

Ngoc K. Vu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 22-26, 29 and 30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 22-26, 29 and 30 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>11/8/01</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1 and 22 are rejected under the judicially created doctrine of double patenting over claims 1, 4 and 5 of U. S. Patent No. 6,334,218 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows: claims 1 and 22 of the instant application include the same scopes as in the claims 1, 4 and 5 of the patent.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-4 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The following art rejections are applied to applicant's claims as best understood in light of the rejection under 112, first paragraph, as detailed above.

Claim 1 calls for a "modulator which modulates the satellite signal tuned by the tuner into a digital signal". There is no support in applicant's originally filed specification for this feature. The specification at page 10, lines 17+ and in figure 2 apparently discloses A/D converter 2 and QPSK demodulator 3 as accomplishing this feature. Clearly, there is no disclosure directed toward a "modulator" for performing the claimed feature, so it appears applicant intended to claim a demodulating process. Therefore, one skilled in the art would not be able to make and/or use the invention as presently claimed in claim 1 given applicant's present lack of disclosure.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-4, 22, 23, 25, 26, 29 and 30 rejected under 35 U.S.C. 102(b) as being anticipated by Chaney et al. (US 5,515,058).

Regarding claim 1, Chaney discloses a digital satellite broadcast receiver 17 which comprises: an antenna 5 for receiving a satellite signal; a tuner 317 for tuning the satellite signal received by the antenna; a demodulator 19 which demodulates the received signal; an error corrector 321 which corrects a position error of the satellite antenna using the signal demodulated by the demodulator, and outputs a corresponding output signal; a microprocessor 337 which receives the signal demodulated by the demodulator and the output signal of the error corrector, and outputs a control signal to control an antenna driver 343 which controls the position of the antenna 5 (see FIG 5).

Claim 2, Chaney discloses that A/D converter 305 which converts the analog satellite signal into a digital signal; and a demodulator 319 which demodulates the digital signal.

In claim 3, Chaney discloses that the antenna driver 343 generates the control signal driving the antenna 5 (see FIG 5 and col. 9, lines 16-18).

In claim 4, Chaney discloses that a control logic which transmits the control signal of the microprocessor 337; a motor 343 for driving the antenna in accordance with the control

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signal of the microprocessor 337; a power supply which supplies the power to the motor (see col. 9, lines 14-20).

Regarding claim 22, Chaney discloses a method for receiving digital satellite broadcast comprising steps of : setting moving limits of a satellite antenna (elevation look up table); detecting satellites by measuring a magnitude of a signal received by the satellite antenna (signal quality) by changing a direction of the satellite antenna; and locating a desired one of the detected satellites by: confirming verification information of the desired satellite; setting the direction of the satellite antenna by correcting position error (the elevation motor control information is read by microprocessor in order to set the elevation of antenna); comparing the verification information of the desired satellite with verification information of the detected satellite (search algorithm); changing the direction of the satellite antenna if the verification of the desired satellite does not correspond to the verification information of the detected satellite; and storing the set direction and the verification of the detected satellite if the verification information of the desired satellite corresponds to the verification information of the detected satellite (see col. 9, line 26 to col. 10 line 6; col.. 8, lines 40-42 and lines 64-67).

In claim 23, Chaney discloses that the step of detecting satellite by measuring the magnitude of the signal received by the satellite antenna is performed by measuring an AGC level and a noise level (SNR).

In claim 25, Chaney discloses that the verification information of the desired satellite and the detected satellite includes transponder information and channel information (see col. 5, lines 57-67 and col. 6, lines 27-31).

In claim 26, Chaney discloses that the correction of the position error in the step of setting the direction of the satellite antenna is performed with a FEC decoder (col. 6, lines 16-23).

Regarding claim 29, Chaney discloses the step of "locating a second desired satellite" by repeating the steps of locating a desired satellite (see col. 3, lines 58-60).

In claim 30, Chaney discloses the method for receiving digital satellite broadcast further comprising steps of: determining a position information of a satellite using position information stored in a memory (col. 3, lines 62-66) and finding the desired satellite using the position information in the memory (col. 5, lines 53-62).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chaney et al. (US 5,515,058) in view of Kurita (US 5,313,651).

Regarding claim 24, Chaney et al discloses a method for receiving digital satellite broadcast comprising steps of : setting moving limits of a satellite antenna (elevation look up table); detecting satellites by measuring a magnitude of a signal received by the satellite antenna (signal quality) by changing a direction of the Satellite antenna; confirming verification information of the desired satellite; setting the direction of the satellite antenna by correcting a position error (the elevation motor control information is read by microprocessor in order to set the elevation of antenna); comparing the verification information of the desired

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satellite with verification information of the detected satellite (search algorithm); changing the direction of the satellite antenna if the verification of the desired satellite does not correspond to the verification information of the detected satellite; and storing the set direction and the verification of the detected satellite if the verification information of the desired satellite corresponds to the verification information of the detected satellite (see col. 6, lines 16-23; col. 9, line 26 to col. 10 line 6; col. 8, lines 40-42 and lines 64-67). Chaney does not specifically disclose the step of "measuring the AGC level and the noise level" for detecting satellites.

Kurita discloses that a receiver apparatus which derives a received signal level from an AGC voltage and calculates a noise level of the received signal from noise levels measured in a high band and a low band in a linear approximation fashion to calculate a received level corresponding to the C/N is well known in the art (see col. 3, lines 50-58). Therefore, it would have been obvious to the one of ordinary skill in the art at the time the invention was made to modify Chaney by measuring the noise of the received signal as taught by Kurita in order to obtain a high quality of channel.

Conclusion

9. The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually depositing or transmitting the correspondence or by an individual who, upon information and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

Certificate of Mailing

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:

Commissioner for Patents

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P.O. Box 1450
Alexandria, VA 22313-1450

on _____
(Date)

Typed or printed name of person signing this certificate:

Signature: _____

Registration Number: _____

Certificate of Transmission

I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office, Fax No. (703) _____ - _____ on _____
(Date)

Typed or printed name of person signing this certificate:

Signature: _____

Registration Number: _____

Please refer to 37 CFR 1.6(d) and 1.8(a)(2) for filing limitations concerning facsimile transmissions and mailing, respectively.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc K. Vu whose telephone number is 571-272-7306. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on 571-272-7294. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Ngoc K. Vu', with a long horizontal flourish extending to the right.

Ngoc K. Vu
Primary Examiner
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July 22, 2005